OKIPAGE 14ex, 14i and 14i/n

User's Guide

Preface

Every effort has been made to ensure that the information in this document is complete, accurate, and up-to-date. Oki assumes no responsibility for the results of errors beyond its control. Oki also cannot guarantee that changes in software and equipment made by other manufacturers and referred to in this guide will not affect the applicability of the information in it. Mention of software products manufactured by other companies does not necessarily constitute endorsement by Oki.

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EEC compatibility

CE

This product complies with the requirements of the Council Directives 89/336/EEC (EMC) and 73/23/EEC (LVD), as amended where applicable, on the approximation of the laws of the member states relating to Electromagnetic Compatibility and Low Voltage.

Energy Star

As an Energy Star Partner, Oki has determined that this product meets the Energy Star guidelines for energy efficiency.

Universal Serial Bus

This printer is fitted with an industry standard universal serial bus (USB) data interface.

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Safety instructions

This printer has been carefully designed to give years of safe, reliable performance. As with all electrical equipment, however, there are a few basic precautions that should be taken to avoid personal injury or damaging the printer:

- Read this setup guide carefully and save it for future reference.
- Read and follow all warning and instruction labels on the printer itself.
- Disconnect the printer before cleaning. Use only a damp cloth. Do not use liquid or aerosol cleaners to clean the printer.
- Place the printer on a firm, solid surface. If the printer is placed on something unsteady, it may fall and become damaged or injure someone. If the printer is placed on a soft surface, such as a rug, sofa, or bed, the vents may become blocked causing the printer to overheat.
- Do not put the printer on or near a heat source, such as a radiator or heat register. Keep it out of direct sunlight. Allow enough room around the printer for adequate ventilation and easy access.
- Do not use the printer near water, or spill liquid of any kind into it.
- Make sure that the power source matches the rating listed on the back of the printer. If you are not sure, check with your dealer or with your local power company.
- This printer has an earthed, 3-pin plug as a safety feature and will only connect to an earthed outlet. If this plug cannot be connected to a power outlet, then it is possible that the power outlet is of the older, non-earthed type. Contact an electrician to have the power outlet replaced. Do not use an adapter to defeat the earthing.
- To avoid damaging the power cable, do not put anything on it or place it where it will be walked on. If the cable becomes damaged or frayed, replace it immediately.
- If an extension cable or power strip is being used with the printer, make sure that the total of the amperage rating required by all the equipment is less than the rating of the extension cable or power strip. The total ratings of all equipment plugged into the outlet should not exceed 13 amperes.

- The power outlet into which the printer is connected must remain accessible at all times.
- Opening any cover may expose hot surfaces. These are clearly labelled. Do NOT touch them.
- Do not insert anything into the ventilation slots on the printer; you could get a shock or cause a fire.
- Aside from the routine maintenance described in this user's guide, do not try to service the printer yourself. Opening a cover may expose you to shocks or other hazards.
- Do not make any adjustments other than those outlined in this users guide as damaged may be caused to the printer.

If anything happens that indicates that the printer is not working properly or has been damaged, disconnect the printer from the power source and contact your dealer. These are some of the things to look for:

- The power cable or plug is frayed or damaged.
- Liquid has been spilled into the printer, or it has been exposed to water.
- The printer has been dropped, or the cabinet is damaged.
- The printer does not function normally when following the operating instructions.

Toner cartridge and image drum handling

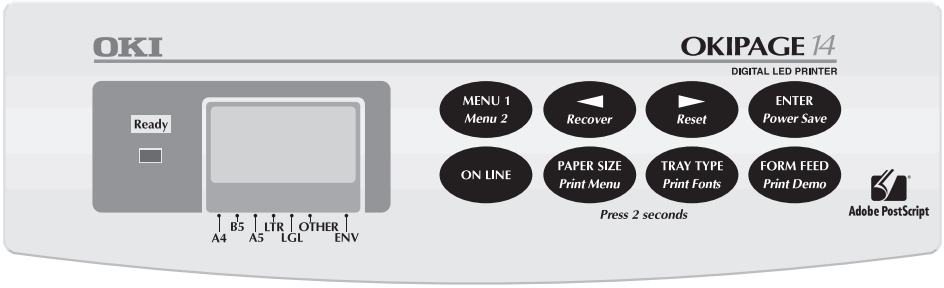
- Leave unused toner cartridges and image drum units in their packages until needed. When replacing a toner cartridge or image unit, reuse the packaging to dispose of the old toner cartridge or image drum unit.
- Do not expose the toner cartridges and image drum units to light for more than five minutes. Never expose the green drum (inside the image drum unit) to direct sunlight.
- Always hold the image drum unit by the ends - never by the middle. Never touch the green drum inside the image drum unit.
- To avoid damage to the image drum unit, always use original toner cartridges.
- Exercise care when removing the toner cartridge. Do not let it touch your clothing or porous materials. The toner powder causes permanent stains.

- Small amounts of toner spilled on skin or clothing can be readily removed with soap and cold water. Using heated water will make removing the stain much more difficult.

Emergency first aid

- **IF TONER IS SWALLOWED:** Induce vomiting and seek medical attention. Never attempt to induce vomiting or give anything by mouth to a person who is unconscious.
- **IF TONER IS INHALED:** Take the person to an open area for fresh air. Seek medical attention.
- **IF TONER GETS IN THE EYES:** Flush eyes with large quantities of cool, NOT cold, water for a minimum of 15 minutes keeping eyelids open with fingers. Seek medical attention.

Printer control panel



Ready LED indicator

The Ready LED indicator has the following functions:

- ON - printer is on-line ready to receive data.
- OFF - printer is off-line, cannot receive data. All button functions on the control panel are now active.
- BLINKING - printer is receiving data.

Liquid crystal display

The liquid crystal display (LCD) indicates the following:

- What the printer is doing during normal operation.
- When there is a need to add paper or change consumables.
- When there is something wrong with the printer.

Printer buttons

These allow the user to access, view and change printer settings. Quick menus are also available from the panel to allow rapid access to more frequently used functions.

Button functions

To access the primary function on a button, press momentarily and release. To gain access to the secondary function, press and hold the button for at least two seconds.

MENU 1/*Menu 2*

When printer is off-line:

- Press to access printer menu 1.
- Press and hold to access printer menu 2.

◀/*Recover*

When in printer menu mode:

- Press to reverse through items in a menu category.

When printer is offline:

- Press and hold to resume printing after an error condition, depending on nature of error.

▶/*Reset*

When in printer menu mode:

- Press to advance through items in menu category.

When printer is offline:

- Press and hold to reset the printer.

ENTER/*Power Save*

When in printer menu mode:

- Press to make current setting active. An asterisk (*) will appear in the display.

When printer is offline:

- Press and hold to enter power save menu.

ON LINE

When printer is off-line:

- Switches printer to on-line.

When printer is on-line:

- Switches printer to off-line.

When in menu mode:

- Press to end Menu session.

PAPER SIZE/*Print Menu*

When the printer is off-line:

- Press to enter the Paper Size quick menu.

- Press and hold to print the current Menu Settings. When the display shows MENU HP PCL6, press ENTER.

TRAY TYPE/*Print Fonts*

When the printer is off-line:

- Press to enter the Tray Type quick menu.
- Press and hold to print a sample of all the resident, card and soft fonts present. When the display shows FONTS HP PCL6, press ENTER.

FORM FEED/*Print Demo*

Press to print all the remaining data in the printer buffer and eject the page.

When the printer is off-line:

- Press and hold to print the Demo page. When the display shows DEMO HP PCL6, press ENTER.

Printer menus

It is possible, using the front panel buttons, to change the default configuration of the printer to accommodate software application, specific paper size, method of paper feed and interface connection. The menu structure consists of three levels:

Category

Each category consists of several items, selected by pressing the MENU 1/*Menu 2* button (with the printer off-line). When the required category is displayed, press the ENTER button to display a list of items.

Item

Each item consists of several parameters displayed on the upper line in the LCD by pressing the MENU 1/*Menu 2* button.

Parameter

The parameter will be displayed on the lower line of the LCD by pressing the ◀/*Recover* and ▶/*Reset* buttons. When the required parameter is displayed, press the ENTER button.

Viewing and modifying menu settings

Note: *If software can control a feature that is also controlled in the printer menu, the software overrides the menu setting. Use software to control printer features whenever possible.*

1. Press ON LINE to place the printer off-line to enter Menu 1 or Menu 2 as required.
2. Menu 1 is selected by momentarily pressing and releasing the MENU 1/*Menu 2* button. Menu 2 is selected by holding down the MENU 1/*Menu 2* button for at least two seconds.
3. Once the first menu category is displayed, further presses of the MENU 1/*Menu 2* button move on to the next category.
4. To enter a category and display an item, press the ENTER button. The LCD shows the item in the top line and the current parameter in the bottom line.

5. The current active parameter is indicated with an asterisk*. To alter the parameter, press the ◀/*Recover* and ▶/*Reset* buttons. To make a new parameter active, press the ENTER button when that parameter is displayed.

6. To move on to a new item or category, press the MENU 1/*Menu 2* button. To exit the menu, press the ON LINE button.

The following tables list printer menu selections. Factory default settings are indicated in bold type.

Level 1 menu settings

Category	Item	Parameter		Explanation
Personality	Emulate	**Auto**	HP PCL6	Selects emulation. Auto is standard. PCL6, Epson FX, IBM PPR or Adobe PostScript can be selected manually.
		Epson FX	IBM PPR	
		Adobe Postscript (14i/n only)		
Tray Select	Manual	**Off**	On	Selects the standard tray to feed paper from. May be overridden by software application. Tray 2 or Feeder only appear in Menu 1 if the optional Tray 2 or feeder are fitted to the printer.
	Paper In	**Tray 1**	Tray 2	
		Feeder		
	Auto Tray	**Off**	On	If Tray 2 is installed and is set to ON, when a paper tray runs empty and another tray is loaded with the same stationery, the printer will automatically select the other tray and continue printing.
Edit Size	Edit Size	**Cassette**	Letter	Selects the correct 'edit size' for the stationery in the main trays. This is the printable area inside the physical page size.
		Exec	Legal 14	
		Legal 13	A4 Size	
		A5 Size	A6 Size	
		B5 Size	Com-9	
		Com-10	Monarch	
		DL Env	C5 Env	
Paper Size	Tray 1	**A4 Size**	A5 Size	Selects the physical paper size used for each paper feed.
		A6 Size	B5 Size	
		Letter	Exec	
		Legal 14	Legal 13	

Level 1 menu settings

Category	Item	Parameter		Explanation
Paper Size	Manual	**A4 Size**	A5 Size	Selects the physical paper size used for each paper feed.
		A6 Size	B5 Size	
		Com-9	Com-10	
		Monarch	DL Env	
		C5 Env	Letter	
		Exec	Legal 14	
		Legal 13		
	Tray 2	**A4 Size**	A5 Size	
		A6 Size	B5 Size	
		Letter	Exec	
		Legal 14	Legal 13	
	Feeder	**A4 Size**	A5 Size	
		A6 Size	B5 Size	
		Com-9	Com-10	
		Monarch	DL Env	
		C5 Env	Letter	
		Exec	Legal 14	
		Legal 13		
Media Type	Tray 1/ Tray 2	**Medium**	M Heavy	Selects the appropriate print media type. Tray 2 or Feeder only appear in Menu 1 if the optional Tray 2 or feeder are fitted to the printer. Be sure to select TRANSPR when printing on overhead transparencies.
		Heavy	Light	
		M Light		
	Feeder	**Medium**	M Heavy	
		Transpr	Heavy	
		Light	M Light	
Media Type	Manual	**Medium**	M Heavy	Selects the appropriate print media type. Tray 2 or Feeder only appear in Menu 1 if the optional Tray 2 or feeder are fitted to the printer. Be sure to select TRANSPR when printing on overhead transparencies.
		Transpr	Heavy	
		Light	M Light	
Paper Size Chk	Size Chk	**Enable**	Disable	If this option is enabled, print media will be checked for the correct size, and a message will appear if the wrong size is loaded.

Level 1 menu settings

Category	Item	Parameter		Explanation
Copies	Copies	**1** to 999		Selects the number of copies to be printed.
Euro Sign	Euro Sign	**Enable**	Disable	Used in certain non-Windows applications to enable printing of the European currency symbol.
Fonts & Symbols	Font SRC	**Resident**	Card	Selects the appropriate source for internal printer fonts. If there are no added optional extra fonts, only RESIDENT will appear.
	DLLSOFT			Appears if soft fonts have been downloaded into the printer's memory.
	Font No	**I000** to I048		Selects the appropriate font from the internal font set to use for received text files. These may be identified by printing the font list from the operator panel.
	Font CPI	**10.00**	0.44 to 99.99	Appears if selected font is of the scaleable fixed spaced type.
	Font HGT	**12.00**	4.00 to 999.75	Appears if selected font is of the scaleable proportional spaced type.
	Symbol	**PC-8**		89 symbol sets are available. Selects the symbol set to be used for printing.
Page Layout 1	A4 Width	**78 Col**	80 Col	Determines number of characters printed on a line before the printer will force a line break.
	Blnkskip	**Off**	On	Selects whether blank pages are included in the output or suppressed (skipped).
	CR Function	**CR**	CR+LF	Determines whether a received carraiage return character also moves the print position down to the next line. Most applications achieve this function by sending a line feed character after the carriage return, but if lines of text appear to overprint, select CR+LF.
Page Layout 1	LF Function	**LF**	LF+CR	Determines whether a received line feed character also moves the print position to the beginning of the next line. Most applications achieve this function by sending a carriage return character before the line feed, but if consecutive lines of text appear to stagger across the page, select CR + LF.
Page Layout 2	Orient	**Portrt**	Landscp	Selects which way round the page prints. Portrait is tall, landscape is wide.
	Lines/PG	**64 LNS**	5 to 128 LNS	Selects the standard number of lines per page. This figure is automatically adjusted when orentation is changed, to preserve the line spacing.
Host I/F (14i/n only)	Parallel	**Enable**	Disable	Makes the parallel interface active or inactive.
	Network	**Enable**	Disable	Makes the network interface card, if installed, active or inactive.

Level 2 menu settings

Category	Item	Parameter		Explanation
Print Mode	Mode	**600** V1200 (600 x 1200) 300		Printing resolution setting in dots per inch (dpi).
Auto Operation	Autocont	**Off**	On	The printer can recover from a memory overflow or print overrun automatically after about 15 seconds if set to ON, otherwise Recover key has to be pressed.
	Wait Time	Off 5 sec **90 sec**	On 6 sec 300 sec	Most computer software will send a form feed character at the end of the print job so that the last page is ejected. If it does not, the printer can automatically eject the last page after a period of inactivity.
	Man Time	**60 sec** 30 sec	Off	This setting applies to Adobe PostScript operation only. It determines how long the printer will wait for a sheet to be inserted in the manual paper feeder.
Darkness Control	Darkness	**0**; +1; +2; -2; -1		Adjusts internal settings to compensate for variations in humidity. In environments of high temperature and humidity if some feint printing occurs, increase setting. In environments of low temperature and humidity if black or white spots appear, decrease setting.
Power Saving	Power Saving	**0 sec** Disable	8 min	When this function is active, power to the fuser is turned off to conserve energy. A slightly longer delay will occur before the next job prints, to allow the fuser to warm up again.
Low Toner	Low Tnr	**On**	Off	This setting determines whether the printer will remain on-line (ON) or go off-line (OFF) when the toner cartridge has only enough toner left for about 100 pages.
Toner Saving	Toner	**Disable** Light	Medium	
Clearable Warnings	Clr Wrng	**On**	Job	Many messages which may appear from time to time can be cleared by pressing the Recover key if this function is ON. If it is set to JOB, the host computer may be able to clear such warnings by downloaded commands. This setting is not relevant when using PostScript emulation.
Error Report	Erreport	**Off**	On	In PostScript mode this setting determines whether an error report will be printed when an error has occurred.
Parrallel I/F	Speed	**High**	Medium	Most modern PCs can download data at very high speed. If data corruption is experienced on printed pages, reduce the setting to MEDIUM.
	Bi-Dirct	**Enable**	Disable	The printer can send status information back to the computer. A printer interface cable compliant with IEEE1284 is needed to use this feature.

Level 2 menu settings

Category	Item	Parameter		Explanation
Parrallel I/F	I-Prime	**Off**	On	When ON, this feature enables the computer to reset the printer by toggling the state of the I-PRIME line on the data interface.
Network (14i/n only)	Frame	**Auto** 802.3 Ether2	802.2 Snap	The ITEM and PARAMETER that appear under Menu 2 will depend on the type of network the printer is connected to. Refer to the Network Administrator's Guide that is on the CD supplied with the printer for further information.
	TCP/IP	**Enable**	Disable	
	DHCP	**Off**	On	
	RARP	**Off**	On	
	IP Byte 1	**193**	0-255	
	IP Byte 2	**132**	0-255	
	IP Byte 3	**3**	0-255	
	IP Byte 4	**99**	0-255	
	SM Byte 1	**255**	0-255	
	SM BYte 2	**255**	0-255	
	SM Byte 3	**255**	0-255	
	SM BYte 4	**0**	0-255	
	GW Byte 1	**192**	0-255	
	GW Byte 2	**168**	0-255	
	GW Byte 3	**99**	0-255	
	GW Byte 4	**254**	0-255	
	Netware	**Enable**	Disable	
	EtherTalk	**Enable**	Disable	
	Net Mnt	**Status**	Status 18	
	Self Test	**OK**	NG	

Level 2 menu settings

Category	Item	Parameter		Explanation
Language	Language	**English**	Deutsch	This settings determines which language is used for LCD messages and menu printing.
		Francais	Italian	
		Castlan	Svenska	
		Norsk	Dansk	
		Nederl	Turkce	
		Portug	Polski	

Paper

Paper and envelope types

The manufacturer of this printer recommends the following guidelines when selecting paper and envelopes for use in your printer:

- Paper and envelopes should be stored flat and away from moisture, direct sunlight and heat sources.
- Use a smooth finished paper such as copier or laser type paper with a Sheffield (smoothness) rating of 250 or less. If in doubt, please ask your paper supplier.
- Use envelopes designed for use in laser type printers.
- The use of heavily laid or textured paper will seriously impact on the life of the image drum and give poor print quality.
- Do not use very smooth, shiny/glossy paper.
- Do not use heavily embossed headed paper.
- Avoid printing on both sides and putting paper through the printer twice.
- Avoid using paper with perforations, cut outs and ragged edges.
- Do not use envelopes with windows or metal clasps.
- Do not use envelopes with self sealing flaps.
- Avoid using damaged or curled envelopes.

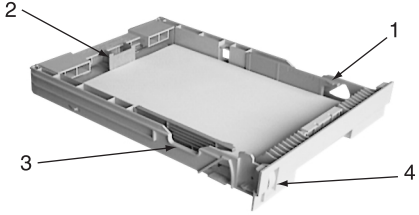
Transparencies and adhesive labels

The manufacturer of this printer recommends the following guidelines when selecting transparencies and adhesive labels for use in your printer:

- Always use manual feed.
- Always use rear output.
- Media must be designed for use in laser printers or photocopiers. Do not use media designed for use in colour laser printers and photocopiers.
- Must be able to withstand 200°C for 0.1 sec.
- Labels should cover entire carrier sheet.
- Carrier sheet or adhesive **must not** be exposed to any part of the printer.

Installing paper

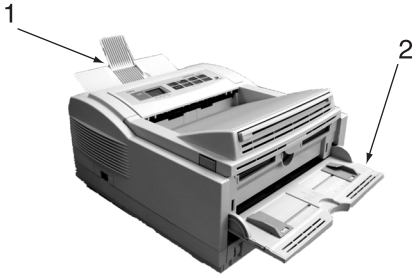
1. Remove the paper tray from the bottom of the printer and place plain paper in the tray, keeping the level of the paper in the tray below the guide marks (1).



2. Adjust the rear paper support (2) to the size of paper being used by lifting up and sliding forwards or backwards as necessary.
3. Adjust the paper guides (3).
4. Replace the tray in the printer. The paper level indicator (4) provides a visual indication of how much paper is left in the tray.

Printing envelopes

1. Pull out the rear exit extender (1) until it locks and lift out the support bar.



2. Pull down the manual feed tray (2) and adjust the paper guides to the width of the envelope.
3. Insert the envelope, flap down and to the left, until the printer grips it.
4. Set envelope size and landscape orientation in software being used, then issue the print command.

Print quality adjustments

The process used to fuse (fix) the printed image to the paper involves a mixture of pressure and heat. Too much heat will cause lightweight paper to crease or curl and corrugations in transparencies. Too little heat will cause the image not to fuse fully into heavyweight paper.

Use the MEDIA TYPE setting in MENU 1 to adjust for different thicknesses of paper. The following table gives the range of paper weight for each media type.

Media Type	Paper Weight
Heavy	105 to 122 g/m^2
Medium heavy	89 to 104 g/m^2
Medium	74 to 88 g/m^2
Medium light	67 to 73 g/m^2
Light	59 to 66 g/m^2

Printing transparencies

When printing transparencies, the manual feed must be used and the media type changed to transparencies as follows:

CAUTION:
Damage to the printer may occur if the incorrect setting is used when printing transparencies.

1. Select MANUAL FEED option under MEDIA TYPE in MENU 1. Then select TRANSPR to ensure the correct fusing temperature is set.
2. Open the manual feed on the printer and place the transparency face up between the paper guides.
3. Adjust the paper guides to the width of the transparency.
4. Select manual feed and correct paper size in the software package being used.

Note: *Remember to reset the printer and software for normal paper after printing transparencies.*

Heavyweight paper or cardstock

The normal paper path from a main paper tray to the top output stack involves two complete U-turns. This may sometimes cause very heavyweight paper or cardstock to jam or misfeed.

Use the manual feed tray to feed this type of paper and the rear paper exit to collect printed output. This gives a nearly straight paper path through the machine and may prove more reliable in this type of application.

Toner

When to replace toner cartridge

Replace the toner cartridge after TONER LOW displays in the control panel LCD. After TONER LOW displays, the printer prints about 100 more pages, then displays TONER EMPTY and stops printing. Printing resumes after a new toner cartridge has been installed.

CAUTION:
The use of original toner or toner cartridges is highly recommended. Using compatible or counterfeit toner or toner cartridges can seriously damage the printer.

Toner cartridge life

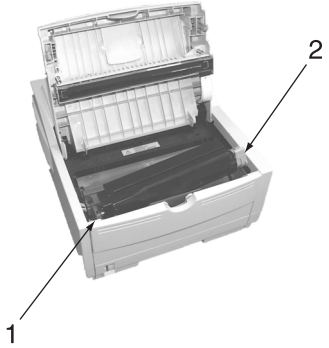
How long your toner cartridge lasts depends on the print density; the percentage of the page that prints black. A typical letter has 3% to 5% print density; graphics usually have higher density. Higher print density means toner is used up faster. At 5% print density, a toner cartridge will print an average of 4000 pages. Remember, this is only an average: actual results may vary.

The first toner cartridge installed in a new printer has to fill the image drum reservoir and saturate the developing roller with toner. This filling of the image drum reservoir reduces the number of pages produced from the first toner cartridge.

Replacing toner cartridge

WARNING
Be careful when handling the toner cartridge. Do not let toner spill on your clothing or other porous materials.

1. Open the cover and remove the used toner cartridge.
2. Shake the new toner cartridge to evenly distribute toner.
3. Unwrap the new toner cartridge and carefully peel off the sealing tape.



4. Insert the cartridge into the printer, left end (1) first as illustrated.
5. Push the coloured tab (2) forward to release the toner into the toner hopper.
6. Close the top cover and press down to latch it closed.

Image drum

When to replace image drum

When the drum reaches 90% of its life, a CHG DRUM message is displayed in the control panel LCD. Change the image drum cartridge when the print becomes faint or begins to deteriorate.

Image drum life

The life of an image drum depends on a number of factors, including temperature and humidity, the type of paper used, and the number of pages per job.

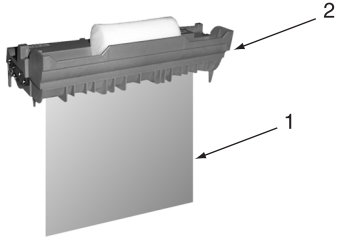
The image drum should last about 20,000 pages of A4 size paper (continuous printing). This number is approximate because the environmental conditions and the paper type used may vary.

The first toner cartridge installed in a new image drum has to fill the image drum reservoir and saturate the developing roller with toner. This filling of the image drum reservoir reduces the number of pages produced from the first toner cartridge installed in a new image drum.

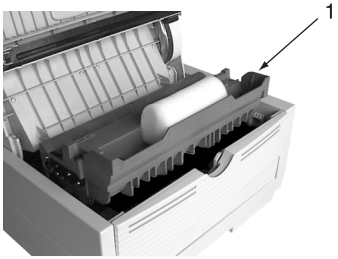
Replacing image drum

CAUTION:
Never expose the image drum unit to light for more than 5 minutes. Never expose the image drum unit to direct sunlight. Always hold the image drum unit by the ends. Never touch the surface of the green drum inside the image drum unit.

1. Open the cover and remove the used image drum.
2. Remove the new image drum from the package and remove the protective sheet (1) from the image drum (2).



3. Install the new image drum (1) into the printer placing the alignment pins on each end into the slots in the printer.



4. Remove the sponge packaging from the image drum and discard.
5. Install a new toner cartridge. Refer to “Replacing toner cartridge”.
6. Close the top cover and press down to latch it closed.
7. Reset the drum counter following the instructions given below.

Resetting drum counter

After replacing the image drum, reset the drum counter to keep a correct count of the number of pages printed on the image drum.

1. Turn the printer on while holding the MENU 1/*Menu 2* button. USERMNT displays in the control panel LCD.
2. Press MENU 1/*Menu 2* three times. DRUM CNT RESET displays.
3. Press ENTER. The counter resets and the printer goes ON-LINE.

Status messages

This section expalins the different messages that are displayed on one, or both lines in the LCD of the printer.

ttttt = TRAY1, FEEDER, TRAY2 (option).

TRAY1 = upper tray

TRAY2 = lower tray

FEEDER = multi media feeder

» Indicates that the second line is a scrolling display.

Message	Description
ON-LINE XXX	Indicates the printer is in ON LINE mode. XXX = HP PCL6, FX, PPR, WIN, AUTO.
OFF-LINE	Indicates the printer is in OFF-LINE mode.
PROCSING XXX	Indicates that the printer is receiving data.
DATA XXX	Indicates that there is data in the printer buffer.
PRINTING	Printer is printing.
NOPS	Indicates that the PJL command has selected a printer language that is not installed in the printer.
PWR SAVE	Indicates that the printer is operating in power saving mode.
TONERLOW	Indicates the amount of toner left in the toner cartridge is low. Print quality may be affected.
TONERSNS	Toner sensor error.

Message	Description
CHG DRUM	Indicates that the printer has reached the end of its life (image drum). Print quality may be affected
PRINTING nnn/mmm	Indicates that copy pages are being printed. nnn = current page. mmm = total pages.
RESET	The printer clears the remaining data in its buffer and resets the menu to user default settings. Temporary DLL/Macro data is also cleared.
PRINT FONTS	The printer will print all the available fonts. Ready ON – initiated by software command. Ready BLINK – initiated by button.
PRINT CLEANING	Indicates that the printer is cleaning.
PRINT DEMO	The printer will print a demo page. Ready ON – Initiated by software command. Ready BLINK – Initiated by button.
PRINT MENU	The printer will print current menu settings. Ready ON – Initiated by software command. Ready BLINK – Initiated by button.
MANUAL #REQUEST	The printer requires different size of paper. # = Paper Size.
CLEANING MANUAL#	The printer is requesting # size paper to be inserted for cleaning process.
ttttt PAPEROUT	Indicates that the paper tray is empty.
COVER T2 OPEN	Indicates that the cover to tray 2 is open.

Message	Description
ttttt mmm>> PAPER>> REQUEST	A request for paper of size mmm. ttttt = TRAY1, FEEDER, TRAY2 (option).
MEMORY OVERFLOW	Memory has overflowed for one of the following reasons. • Too much data on page. • Too much macro data. • Too much DLL data. Press RECOVER to continue. Install extra memory or reduce data on page.
RECBUF OVERFLOW	The receive buffer memory has overflowed. Press RECOVER to continue. The PC ignores printer busy signal in the interface, check cable pin assignments.
PRINT OVERRUN	Print processing speed could not follow the paper feed speed. Press RECOVER to continue. Simplify page formatting data .
HOST I/F ERROR	Indicates an error in the network or RS232C interface. Check protocols of printer and host. Press RECOVER to continue.
TONER EMP	Indicates that TONER LOW has been exceeded and the cartridge should be replaced.
ttttt SIZE ERR	Wrong paper size found. Open and close printer cover to continue. Check paper size or paper double feed.
ttttt INPUT JAM	Paper jam found, when fed from paper tray. Check paper in the tray. Open and close printer cover to continue.
ttttt FEED JAM	Paper jam found, during paper feed. Remove misfed paper and close printer cover to continue.
ttttt EXIT JAM	Paper jam found in paper exit area. Open printer cover, remove paper, close printer cover to continue.

Message	Description
MENU	Settings Menu.
COVER OPEN	Cover is open. Press down firmly to close.
EEPROM RESETTING	EEPROM ID check error. Press RECOVER to reset EEPROM to factory default.
ERROR nn	Abnormality found in the printer. Switch printer off then on again to clear, if problem persists, contact service representative.
ERROR On aaaaaaaa	Abnormality found in the controller. Switch printer off then on again to clear, if problem persists, contact service representative. aaaaaaaa = error address
SIMM-ROM ERROR	Flash SIMM sum check error.
INITIAL-IZING	Printer is in initialization mode after switching on, prior to on- line mode.
RESET TO SAVE	Printer is requesting RESET button to be pressed for more than 2 seconds, to write new menu data to EEPROM.

Fonts

What is a font?

A font refers to a set of printable characters in a particular typeface of a specific size (e.g. 12 point) and style (e.g. roman, bold or bold-italic). In computer printing, however, this term has been used in a wider context to refer to all sizes and styles of a particular typeface. In printers, fonts may be divided into two basic types: bitmap fonts and scalable (or outline) fonts.

Bitmap fonts are made up of a pattern of dots (at the printer resolution) to form the image of each printable character. These are of a fixed size and scaling makes them look ragged.

Scalable fonts are stored as a set of mathematical curves. At print time, the printer uses the stored curves to make up a bitmap of each character required, at the required size in the required style, at the full printer resolution. Such fonts are therefore said to be scalable and do not appear ragged at enlarged sizes.

Printing a font list

1. Press the ON-LINE button to take the printer off line.
2. Press TRAY TYPE/*Print Fonts* button for at least two seconds. The LCD shows FONTS HP PCL6.
3. Press the ENTER button.
4. After a short delay two pages of font information will be printed, including samples.

Using fonts

Most Windows programs provide an easy method of font selection within documents. In these cases the font selection is controlled by the host PC software application (or by Windows itself). On other software platforms special codes (escape sequences) must be embedded with the print data. This topic is beyond the scope of this user guide. However, the font list referred to above contains a list of the required codes. Use of these codes is best left to a professional programmer.

Symbol sets

The printer provides special sets of characters for technical, legal and foreign language uses, as well as sets of drawing and standard alphanumeric characters. Each font uses symbols from one or more of these sets.

Printer maintenance

Maintenance menu

This menu is used for printer maintenance and setting some operating functions. To enter the maintenance menu:

1. Turn off the printer.
2. Press and hold MENU 1/*Menu 2* and turn the printer on. USER MNT displays.
3. Press MENU 1/*Menu 2* repeatedly to advance to the category required.
4. Press ENTER to start a function. Press ▶/*Reset* button to see other options, then press ENTER to select the option required.
5. Press ON LINE to exit.

The following table gives the different functions of the maintenance menu:

Function	Description
MENU RESET	Reset Level 1 menu to factory settings.
HEX DUMP	Print a hexadecimal dump of received data for diagnostics. To exit, turn off the printer.
DRUM CNT RESET	Reset the drum counter after replacing the image drum cartridge.
OP MENU	DISABLE = Disables all control panel buttons except ON LINE. ENABLE = All buttons are active.
REC BUFF	Auto, 8KB, 20KB, 50KB, 100KB. (Default = Auto.)
X ADJUST	Adjust horizontal print position in 0.25 mm increments. Plus (+) indicates right movement, minus (-) indicates left movement.
Y ADJUST	Adjust vertical print position in 0.25 mm increments. Plus (+) indicated downward movement, minus (-) indicates upward movement.
2ND TRAY	1…16. (2nd paper tray address. Default = 5.)

Generating a cleaning page

If the printer shows signs of fading, streaking or erratic marks, the problem may be cleared by generating a drum cleaning page as follows.

1. Press the ON-LINE button to take the printer off line.
2. Hold down the ◀/*Recover* and ▶/*Reset* buttons together for at least two seconds. The LCD shows CLEANING and MANUAL A4 SIZE REQUEST.

3. Pull down the manual feed tray (1) and adjust the paper guides to the width of the paper.
4. Insert a sheet of A4 plain paper into the manual feed tray.
5. The LCD shows PRINT CLEANING as the paper is fed. The paper emerges from the printer with grey shading and this sheet of paper may be discarded.
6. Return the printer on line by pressing the ON LINE button.
7. If subsequent printing appears faded or uneven, try replacing the toner cartridge.

Cleaning LED array

Clean the LED array whenever a new toner cartridge is installed; if there is faded vertical areas; light printing down a page.

Wipe the LED array (1) gently with the cleaning pad that came with the new toner cartridge or use an anti-static cleaning pad that is generally available for computer cleaning.

Troubleshooting

Paper jams

The printer may experience a paper jam in one of three areas. The printer status monitor will indicate which area has caused the jam:

- INPUT JAM - paper has failed to leave the selected fed tray and enter the internal paper path of the printer.
- FEED JAM - paper has entered the printer but failed to reach the exit.
- EXIT JAM - paper has reached the exit but has failed to exit completely from the printer.

Input jam

1. Remove the paper tray (1) from the printer.
2. Remove any crumpled or folded paper.

3. Check that the rear paper support has not moved from its paper size setting.
4. Remove any paper from the underside of the printer.
5. Replace the paper tray. After successfully removing any damaged or misfed paper the printer should continue printing.

Feed jam or exit jam

1. Remove the tray and clear any mis-fed sheets as given above.
2. Open the cover.

WARNING
The fuser area will be hot. This area is clearly marked. Do not touch it.

CAUTION:
Never expose the image drum unit to light for more than 5 minutes. Never expose the image drum unit to direct sunlight. Always hold the image drum unit by the ends. Never touch the surface of the green drum inside the image drum unit.

3. Carefully lift out the image drum, complete with the toner cartridge. Be careful not to touch or scratch the green drum surface.
4. Remove any jammed sheets from the paper path.
5. Re-install the image drum, ensuring that it correctly locates into the slots on each side of the printer.
6. Close the top cover and press down to latch it closed.
7. The printer will warm up and commence printing when ready. The page lost through the jam will normally be reprinted.

Note: *If the edge of the jammed paper protrudes (or can be seen) from the exit, reinstall the image drum, close the top cover and switch the printer on. Remove the jammed paper from the exit when the exit roller begins rotating after a few seconds from switching on. However, if the jammed paper cannot be removed, contact a service representative.*

Print quality problems

Before consulting a service representative regarding a print quality problem, check the table below to see if there is a solution, or something you might have overlooked.

Symptom	Problem	Solution
Blank sheets printed.	Image drum cartridge not properly installed.	Reinstall image drum cartridge.
	Empty or missing toner cartridge.	Install new toner cartridge.
Entire page prints faintly.	Empty toner cartridge. Pages get fainter when toner is used up.	Install new toner carttridge.
	LED array is dirty.	Clean LED array.
Page has grey background.	Static electricity, generally from dry environments, causes toner to stick to background.	Change paper to a smoother laser bond or use a humidifier.
Page prints all black.	Hardware problem.	Contact service.
Page has repetitive marks.	Damaged image drum cartridge causes repetitive marks every 1.6 inches (4.06 cm) due to surface nicks and scratches.	Generate a cleaning page, repetitive marks may be temporary.

Symptom	Problem	Solution
Oblong area of faint print appears on each page.	Drop out caused by using paper exposed to high humidity.	Change paper stocks, check paper storage environment or use a dehumidifier; check toner level.
Vertical white streaking or faint areas on page.	Toner is low and does not distribute properly, or the drum is worn out.	Replace toner cartridge. Check drum and replace the drum, if necessary. Contact service.
	LED array is dirty.	Clean LED array.
Vertical black lines.	Hardware problem.	Contact service.
Fuzzy print.	LED array is dirty.	Clean LED array.
Distorted print.	Paper path, lamp assembly, or fusing unit problem.	Generate cleaning page. Contact service.
Faded print.	Toner cartridge is not correctly installed.	Install toner cartridge correctly.
Smeared or blotched print.	Dirty rollers; toner dropped inside printer or image drum problem.	Contact service.
Printed page is light/blurred.	Is toner low?	Replace toner cartridge.
	Is paper meant for laser printers?	Use recommended paper.
	LED array is dirty.	Clean LED array.
Bold characters and dark lines are smeared.	Toner is low.	Install new toner cartridge.

Symptom	Problem	Solution
Print is darker than usual.	Darkness setting is too high.	Change darkness setting.
Pages curl excessively.	Printing on wrong side of paper.	Turn paper over in tray. (Note arrow on paper package). Install paper print side down in tray.
	Moisture in paper. Improper storage.	Avoid storing paper in areas of excessive temperature and humidity. Store paper in protective wrapping.
	High humidity.	Recommended operating humidity: 20-80%

Software problems

Your software (operating environment, applications and printer drivers) controls the printing process. Make sure you have selected the right driver for use with your printer. See your software documentation for more information.

Symptom	Problem	Solution
Printing is garbled.	Incorrect driver is installed.	Install an appropriate driver.

Symptom	Problem	Solution
Printer's output is below rated speed.	Much of the printing delays will be caused by your application. Sometimes purely text documents will print slowly depending on the selected fonts and how they are transferred to the printer.	For maximum speed, use text in your document and use a printer resident font.
Size of top margin increases with each page printed.	Creeping text. Number of lines per page in software is not equal to number of lines per page of printer.	Many software packages assume 66 lines per page, but your printer's default is 64. Adjust software accordingly, or set LINES Per PAGE in the soft control panel to equal lines per page in your software.

Hardware problems

Symptom	Problem	Solution
Graphic image prints partly on one page, partly on the next.	Insufficient printer memory for this image at this resolution.	Change the resolution, reduce the image size, or install more memory in your printer.
When you try to print nothing happens, but printer indicates it is ready to receive data.	Configuration error.	Check cable connection. If more than one printer is available, make sure your printer has been selected.
Garbage prints.	Incorrect cable configuration. Also, see Software Problems.	Check cable configuration, continuity, and length.
Printer freezes or displays error message when computer is rebooted.	Booting the computer while the printer is on can cause a communications error.	Turn printer off before rebooting computer.
Odours.	Gases are given off by forms or adhesives passing through the hot fusing unit.	Make sure the forms you use can withstand heating, and provide adequate ventilation.
Printer is on but must warm up before a job is printed.	Power Save mode is set on to conserve energy. The fuser must heat up before you can begin printing the next job.	To eliminate warm up delay, change Power Save setting in Level 2 Menu.

Specifications

Printing Process:	LED array imaging to organic photo-conductive drum.
Power Supply:	
Voltage:	230V±10% to 240V ±10% AC
Frequency:	50/60Hz ±2%
Power Cable:	1.8m separate cable, terminated with country specific plug.
Physical:	
Dimensions:	215× 345 × 395 mm (H × W × D)
Weight:	Approx. 10 kg with legal/universal cassette installed.
Resolution:	
LED Head:	600 dpi
Max. Output:	600 x 1200 dpi
Power Consumption:	
Power Save:	16 W
Idle:	65 W
Normal:	270 W
Peak	630 W

Memory:	
14ex RAM (fitted):	4Mb
14i RAM (fitted):	8Mb
14ex RAM (max.)	36Mb
14i RAM (max.):	40Mb
Flash SIMM	4Mb and 8Mb
Emulation	
HP PCL6, IBM ProPrinter, Epson FX, Adobe	
Postscript 2 (14i only)	
Paper Handling:	
1st tray (Standard):	250 sheets (75 g/m²)
2nd tray (Optional):	500 sheets (75 g/m²)
Multi Purpose	
Feeder (Optional):	100 sheets/50 envelopes(75 g/m²)
Paper weight:	
1st/2nd trays:	60–105g/m²
manual feed:	60–120g/m²
	(envelopes 90 to 105 g/m²)
Output:	150 sheets face down (75 g/m²)
	50 sheets face-up (rear output (75 g/m²)

Product life:

Duty:	15,000 pages per month maximum.
Consumables:	Image drum 20,000 pages (continuous)
	Toner 4,000 pages @ 5% density

Environment:

Operating:	10 to 32°C at 20 to 80% humidity	
Non-operating:	0 to 43°C at 10 to 90% humidity	
Storage:	-10 to 43°C at 10 to 90% humidity	
Noise:	Operating:	50 dBA
	Standby:	38 dBA
	Power Save:	background level

Interface:

Universal Serial Bus (USB) (standard)
IBM Centronics (CEN 36) (standard)
HCP Network Interface Card (standard 14i/n only)
RS232C (optional)

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